

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

2003-00228  
1-2-2003

In the Matter of:

MATRIX ENERGY, LLC	)	
FOR DETERMINATION OF	)	CASE NO. 2003-00228
RETAIL ELECTRIC SUPPLIER	)	

**POST-HEARING BRIEF OF MATRIX ENERGY, LLC**

Comes the Applicant, Matrix Energy, LLC (hereinafter "Matrix") and for its Post Hearing Brief in support of its application for service by Kentucky Power d/b/a American Electric Power (hereinafter "AEP"), states as follows:

**RELEVANT FACTS**

Matrix is a Kentucky Limited Liability Company that was formed in April of 2002 to mine the Alma coal reserves located in Martin County, Floyd County and Johnson County, Kentucky. (Horn pre-filed testimony (hereinafter "Horn test."), Para. 4 and Exhibit A). The Alma coal reserves are located on property leased by Czar Coal Corporation (hereinafter "Czar"), which is an affiliate of Matrix, as they share common owners. Czar obtained a permit to mine the Alma reserves from the Kentucky Natural Resources and Environmental Protection Cabinet and subsequently entered into a contract with Matrix on September 4, 2002, providing for Matrix to perform the actual mining operation. (Horn test., Para. 5).

The contract between Matrix and Czar was for a one year term and is to be automatically extended for successive periods of one year until the exhaustion of mineable and merchantable coal. (Matrix Answer to Big Sandy's Document Request at Tab 2). Under the contract, Matrix is wholly

responsible for the construction, installation, inspection and maintenance of all facilities, structures, roads, utilities, equipment and refuse used in the mining operation. (Matrix Answer to Big Sandy's Document Request at Tab 2, Para f). Matrix is also responsible under the contract for the employment and payment of its employees and providing them with benefits.

The Alma coal reserves are located on the Czar mining site, which is approximately 17,000 acres. (Transcript (hereinafter "T"), at p. 35). Coal mining operations have been conducted on the Czar mining site since the early 1970's by more than twenty different companies. Six (6) coal seams have been mined on the Czar mining site, the 5 Block coal seam, the Clarion coal seam, the Stockton coal seam, the Coalburg coal seam, the Haddix coal seam and the Taylor coal seam. Each of these coal seams is located at a shallower depth than the Alma coal seam, and the power to conduct these mining operations was provided by AEP from the Pevler substation located on the Czar mining site. (Horn test., Para. 11). The Pevler substation is also referred to as the Czar substation. Big Sandy has never provided electric service within the ground boundaries of the Matrix Mine. (Big Sandy's Answers to AEP's Data Request No. 12). Also, Big Sandy authorized the use of power from the Pevler substation to power the Taurus # 9 mine located in Big Sandy's territory. (T at pp. 36 & 62).

The Alma coal seam to be mined by Matrix is between 400 and 1000 feet below the ground surface and it contains approximately 50 million tons of coal, in place. (Horn test., Para. 6). Seventy-Five percent (75%) of the total mineable coal reserves of the Alma coal seam and Seventy-Six percent (76%) of the total permitted mineable coal reserves of the Alma coal seam are located in the service territory of AEP. Twenty-Five percent (25%) of the total mineable coal reserves of the Alma coal seam and Twenty-Four percent (24%) of the total permitted mineable coal reserves of the Alma coal seam are located in the service territory of Big Sandy. (Horn test., Para. 7 and Exhibit 7 to Horn test.). The coal preparation plant for the Matrix mine is located on the Czar mine

site and power for the plant is provided by AEP. (Horn test., Para. 19). A mining operation of less than the entire Alma reserves on the Czar mining site would not be economically feasible. (T at p. 13).

Since the mouth, or portal, of the mine is located in Big Sandy's service territory, representatives of Beech Fork Processing, Inc. (hereinafter "Beech Fork"), an affiliate of Matrix and Czar, met with representatives of Big Sandy and East Kentucky Power Company (hereinafter "EKP") in January of 2002 to discuss providing power to the Matrix mine portal. Beech Fork advised the representatives of Big Sandy and EKP that construction of the slope and shaft of the Matrix mine were to begin in April of 2002, and be completed in November of 2002. Mr. Davis, the General Manager of Big Sandy, testified that he recalled that the Beech Fork representatives said the construction of the slope and shaft was to begin in April of 2002. (T at pp. 124 & 125). Then the slope and the shaft would be connected and the mine would be ready for full production in January of 2003. (T at pp. 8 & 9).

Big Sandy indicated that it could not provide power to the Matrix mine until approximately one year from January 2002. (Horn test., Para. 14). Big Sandy also indicated that it would need to complete a feasibility study prior to providing power to the Matrix mine. At the close of the January 2002, meeting, Beech Fork understood that it had permission to obtain temporary power to build the slope and the shaft of the Matrix mine through the Pevler substation since Big Sandy was not capable of providing the power. (Horn test., Para. 14 & 15). This permission was consistent with Big Sandy's prior authorization allowing AEP to provide power to Taurus mine #9 through the Pevler substation. Beech Fork then ran a line 0.8 mile from the end of the existing line from the Pevler substation into Big Sandy's territory and to the Matrix mine portal. (T at pp. 35 & 36). Due to problems in obtaining financing, construction of the slope and shaft began in November of 2002,

using power from the Czar substation. (T at p. 19). This construction was completed in November of 2003, and full operation of the Matrix mine is to start in January 2004. (T at p. 15). AEP completed the System Impact Study in June 2002 and the Feasibility Study in August 2002 for Big Sandy, but neither Big Sandy or AEP have taken any other actions to provide power to the Matrix mine. (McKinney test., Exhibits 3 & 4).

The mouth, or portal, of the Matrix mine is located within approximately 1,500 feet of the boundary line dividing the service territory of Big Sandy and AEP. (Horn test., Para. 13). Matrix plans to provide a portion of the electric power to the mine through the portal. Matrix mine also plans to provide power to the mine through three (3) bore holes located in the service territory of AEP. These boreholes are necessary to provide power to mining equipment operating at large distances from the mouth of the mine. (T at p. 8 and Horn test., Para. 22). Matrix will be mining in both AEP's and Big Sandy's service territories within approximately one day of beginning mining operations. (T at p. 42). Matrix's mining plan projects that typically, three (3) section miners will be conducting mining operations in AEP's service territory and one (1) section miner will be conducting mining operations in Big Sandy's service territory. (Matrix Answers to AEP's Data Requests, No. 1). Matrix expects to conduct mining operations in AEP's territory for approximately ten (10) years and ten (10) months, and projects that it will mine 12.5 million tons of coal (permitted and to be permitted) in AEP's territory. Matrix expects to conduct mining operations in Big Sandy's territory for seven (7) years and nine(9) months and projects that it will mine 4.1 million tons of coal (permitted and to be permitted) in Big Sandy's service territory. The power consumption from the Matrix mine operation is 3 to 1 in favor of AEP. (Matrix Answers to AEP's Data Request No. 2).

Since the Matrix mine is a deep mine, all of the equipment operated in the mine is electric powered, including the section miners (995 volts each), shuttle cars (480 volts), roof bolters (480

volts), feeders (480 volts), belt drive (480 volts) and a battery operated scoop (480 volts). The primary cause of damage to this equipment are reductions or surges in electric power. (Horn test., Para. 20). The Matrix mine will have a total power demand of 5,000 to 7,000 kw per month.

AEP owns a 69 kV transmission line built in the early 1970's that crosses the Czar mining site. Before that, AEP had 34 and 45 kV facilities in the area. (T at p. 100). AEP also owns a 138 kV transmission line built in 1971 that crosses the Czar mining site. (T at p. 101). The Pevler, or Czar, substation was built in 1971. (See Map attached as Exhibit A to Matrix Answers to AEP's Data Requests). AEP placed distribution facilities into service in this area in the 1950's. (T at p. 102). Big Sandy states that it built a residential service to the Right Fork of Daniels Creek near the Matrix mine portal in January of 1955. These facilities are not sufficient to serve the Matrix mine. (O'Daniel test., Para 11(b) & ( c)). EKP owns the Thelma-Magoffin 69 kV transmission line, but this line is approximately 5 miles from the Matrix mine entrance. (Big Sandy Answer to AEP's Data Request No. 3).

In order to provide sufficient power to the Matrix mine, AEP proposes to install a 34.5 kV substation adjacent to AEP's 69 kV transmission line, either at the existing Pevler substation or at a new tap location. A power line would then be run to a 12,470 volt substation at the mouth of the mine. Big Sandy proposes to install a 34.5 kV substation adjacent to AEP's 69 kV transmission line at a new tap location in order to serve the mine. Due to the anticipated loss in power between the 34.5 kV substation and the 12,470 volt substation at the mouth of the mine, plus the power loss as electric lines are extended into the mine, the 12,470 volt substation at the mine portal is necessary.

AEP can provide service to the Matrix mine under one of two options. AEP can serve the entire 5 to 7 mw load at the Matrix mine from the existing 69 kV delivery point at the Pevler substation located on the Czar mining site. (AEP Answer to Matrix Data Request No. 10). The

Pevler substation currently has incoming voltage of 69 kV and outgoing voltage of 12,470. (T at p. 34). Matrix would install a 34.5 kV transformer at this substation to provide power to the mine. AEP's cost to upgrade the Pevler substation to serve the Matrix mine is approximately \$154,000, which would not be passed on to Matrix. This includes motorizing the two existing 69 kV in-line switches and using the existing metering equipment. The Pevler substation has been in place since 1971, and the site is already graded, has security fencing and a road accessing this substation. (T at p. 10). The Pevler substation is located within the Czar mining site and it is a remote, secure site. (T at p. 95). The Pevler substation is approximately 2.1 miles from the portal to the Matrix mine. (AEP's Answer to Matrix Data Request No. 6). Due to already existing lines, less than 1.5 miles of distribution line would need to be built in order to serve the Matrix mine from the Pevler substation. Existing infrastructure, poles and line, can be used to build this line. (T at pp. 13 & 44). Additionally, existing distribution lines from the Pevler substation could be used to provide power to the boreholes. (T at p. 29 and Map attached as Exhibit E to Matrix Answers to Big Sandy's Document Request No. 19). The work to upgrade the Pevler substation site to serve the Matrix mine would take four (4) months to complete.

AEP can also provide service to the Matrix mine through a new tap onto its existing Dewey to Inez 69 kV line. (AEP's Answer to Matrix Data Request No. 10). The cost to establish this connection point is approximately \$332,000 (which would not be passed on to Matrix) plus the cost to construct the site, including grading, security fencing and the construction of an access road. Matrix would then install a 34.5 kV transformer at this location to provide the power to the mine. Additionally, 1.6 miles of line will need to be built from the new tap location to the mouth of the Matrix mine. The 1.6 mile line would cost approximately \$118,272 to build at \$14 a foot. The work to complete the construction of the new tap and related facilities would take six months to complete.

(T at p. 107). Under either scenario, Matrix would not be required to pay the \$154,000 cost or the \$332,000 tap fee to AEP, as its annual charge would exceed that amount. (T at pp. 114, 115 & 117).

Big Sandy can provide service to the Matrix mine in the following manner. EKP would contract with AEP to construct a new tap onto AEP's existing 69 kV Dewey to Inez transmission line. EKP would have to pay a transmission charge of at least \$35,000 to \$40,000 a year to AEP. (T at p. 113). Big Sandy would then contract to obtain the power from EKP so that it could serve the Matrix mine. Matrix would install a 34.5 kV transformer at this location to provide power to the mine. This option would include the construction of the new tap, the construction of a new substation and the construction of a 1.6 mile line from AEP's 69 kV transmission line to the mouth of the Matrix mine. This option will cost approximately \$332,000 for the tap onto AEP's 69 kV line, the cost of the construction of the substation, plus grading, fencing and an access road, and the cost of the 1.6 mile line from the substation at the tap to the mouth of the mine. The construction of the new tap, substation, access road and 1.6 mile line would take six (6) months to complete, and the amount to be paid by Matrix for this service would be \$332,000, plus the cost to build the line, plus the costs to construct the substation. (T at pp. 153 & 155).

With respect to rates, AEP can provide power to the Matrix mine at 5,000 kw at a cost of approximately \$68,258.49 per month, based on a cost of power from AEP at 3,000 kw of \$41,119.57 per month. (T at p. 112). This monthly charge would be less if power is provide by AEP through the Pevler substation. (T at p. 69). Big Sandy can provide power to the Matrix mine at 5,000 kw at the cost of \$98,988.71 per month, based on a cost of power from Big Sandy at 3,000 kw of \$59,631.75. (Matrix Answers to Big Sandy Data Request No. 16). If the Matrix mine qualifies for an industrial rate, Big Sandy can serve the mine at 5,000 kw for \$81,697 a month. Assuming that Matrix qualifies for Big Sandy's industrial rate, it would cost Matrix an additional \$13,438.51 per

month if Big Sandy served the entire Matrix mine, as compared to AEP's rate. Over the projected 10 year life of the mine, this would result in an additional cost to Matrix of approximately \$1,612,621.20.

Service of the Matrix mine by AEP will result in safety benefits to the mine. Should AEP provide service to the mine, if a blackout or brownout condition occurs, Matrix will only have to contact one electric company to notify it of the problem and request the repair of the problem. Should Big Sandy provide power to Matrix through a tap onto AEP's 69 kV line, delays in determining the cause any problem with the line could occur while determining whose side of the tap has the problem. (Wagner test., Para. 10 & 11). Furthermore, a single service provider to a mine is an important safety factor because when the power to the mine fails there is no uncertainty about whether any of the equipment is energized. (Horn test., Para. 23). Matrix would prefer that there be a single electric provider to the mine. (T at pp. 13 & 14).

## **LAW AND ARGUMENT**

### **I. THE MATRIX MINE IS A SINGLE ELECTRIC CONSUMING FACILITY LOCATED IN TWO ADJACENT CERTIFIED TERRITORIES.**

Pursuant to KRS 278.018(1) each retail electric supplier has the exclusive right to furnish retail electric service to all electric consuming facilities within its certified territory. (KRS 278.018(1)). However,;

In the event that a new electric-consuming facility should locate in two (2) or more adjacent certified territories, the commission shall determine which retail electric supplier shall serve said facility based on criteria in KRS 278.017(3).

KRS § 278.018(1). An electric consuming facility is defined as "everything that utilizes electric energy from a central station source". KRS 278.010(8). Based on the above stated facts, the Matrix mine is a new electric consuming utility that is located in two adjacent certified territories, and the



criteria set forth in KRS 278.017(3) are to be applied to determine who will provide electric service to the mine.

It is without dispute that approximately seventy-five percent (75%) of the Alma coal reserves are located in the service territory of AEP and the remaining twenty-five percent (25%) of the Alma coal reserves are located in Big Sandy's service territory. All of the Alma coal reserves must be mined by Matrix in order for the Matrix mine to be economically feasible. The Matrix mine will utilize electric energy from a central station source in mining the Alma coal reserves, whether AEP provides power to the mine from the Pevler substation or a new tap to AEP's 69 kV line, or if Big Sandy is allowed to serve the mine from a tap onto AEP's 69 kV line. Accordingly, it is cannot be disputed that it is a single new electric consuming facility. Indeed, Mr. Davis, the General Manager of Big Sandy testified at the November 24, 2003, hearing, that the Matrix mine is a new electric consuming facility, as did Big Sandy in its Answer to AEP's Data Request No. 9. (T at p. 143). See also *KU v. Henderson Union RECC*, PSC Case No. 89-349 (Order of May 23, 1990)(holding that in determining the location of the electric consuming facility in a dispute involving mining operations, the underground reserves, in addition to the above-ground facilities supporting the underground mining are to be considered). Since the Matrix mine is a single electric consuming facility, the criteria in KRS 278.018(1) govern the service of power to the mine.

As indicated in KRS 278.018(1), the Commission is to review the factors set forth in KRS 278.017(3) in determining which utility should serve a single electric consuming facility that is located in two service territories. These factors are:

- (a) The proximity of existing distribution lines to such certified territory.
- (b) Which supplier was first furnishing retail electric service, and the age of existing facilities in the area.
- (c) The adequacy and dependability of existing distribution lines to provide dependable, high quality retail electric service at reasonable costs.

(d) The elimination and prevention of duplication of electric lines and facilities supplying such territory. In its determination of such protest, the commission hearing shall be de novo; and neither supplier shall bear the burden of proof.

The application of each of the above factors weighs in favor of AEP providing service to the Matrix mine and establishes that AEP should serve the Matrix mine.

**A. THE PROXIMITY OF EXISTING DISTRIBUTION LINES TO SUCH CERTIFIED TERRITORY.**

It is undisputed that service to the Matrix mine must be provided from AEP's 69 kV transmission line, which is located on the Czar mining site, in order to provide satisfactory power to the mine because, whether AEP or Big Sandy serves the Matrix mine, the power to the Matrix mine will be provided from AEP's 69 kV line. In fact, Big Sandy has stated that it does not plan to serve the Matrix mine from EKP's 69 kV line that is nearly 5 miles from the mine. Big Sandy has also stated that it does not have distribution lines near the mine that can be used to provide power to the mine. In a previous order, the Commission has ruled that "the term 'distribution line' as used in KRS 278.017(3)(a) . . . mean[s] the line which will actually serve the facility." *Inter-County RECC v. KU*, PSC case No. 94-326 (Order of March 14, 1996). Since AEP owns the 69 kV line that will be used by either AEP or Big Sandy to provide power to the Matrix mine, and it is located on the Czar mining site underlain by the Alma coal reserves, AEP's line is closer in proximity to the mine.

Furthermore, the Pevler substation which is located on the Czar mining site, obtains power from AEP's 69 kV line. A number of existing lines from the Pevler substation serve the Czar mining site. In fact, a line from the Pevler substation ended 0.8 mile from the mouth of the Matrix mine, and this is the line that was extended to provide temporary power during the construction of the mine. The lines from the Pevler substation will also be used to serve the three boreholes to the

Matrix mine, which are located on the Czar mining site in AEP's territory. The lines from the Pevler substation are definitely closer than Big Sandy's lines. This factor definitely weighs in favor of AEP providing service to the Matrix mine.

Even if a new tap is added to AEP's 69 kV line to serve the Matrix mine, which is how Big Sandy proposes to serve the mine, a line of approximately 1.6 miles would need to be built to provide power to the mine portal. Accordingly, the line to be extended from the Pevler substation is closer in proximity than a line to be extended from Big Sandy's proposed new tap on AEP's 69 kV line. Again, this factor weighs in favor of service by AEP.

**B. WHICH SUPPLIER WAS FIRST FURNISHING RETAIL ELECTRIC SERVICE, AND THE AGE OF EXISTING FACILITIES IN THE AREA.**

AEP has been providing retail electric service to the Czar mining site since the early 1970's through the Pevler substation. The Alma coal reserves to be mined by Matrix are located on the Czar mining site. Additionally, AEP placed distribution service into this area in the 1950's. Big Sandy has never provided service to the Czar mining site. Big Sandy states that it has had retail service in the area of the Matrix mine portal since 1955, although even today, it does not have the ability to serve the Matrix mine through its own lines, and proposes to obtain power from tapping onto AEP's 69 kV line. Since AEP was first furnishing retail service to the Czar mine site and located facilities in this area before Big Sandy, this factor weighs in favor of AEP providing service to the Matrix mine.

**C. THE ADEQUACY AND DEPENDABILITY OF EXISTING DISTRIBUTION LINES TO PROVIDE DEPENDABLE, HIGH QUALITY RETAIL ELECTRIC SERVICE AT REASONABLE COSTS.**

This factor also weighs in favor of AEP providing service to the Matrix mine. First, AEP has existing distribution lines from the Pevler substation that can be utilized to provide dependable

electric service to the Matrix mine. Less than 1.5 miles of the existing line from the Pevler substation would need to be replaced to handle the increased voltage needed to serve the mine, but existing infrastructure could be used to build this line. Furthermore, the existing distribution lines on the Czar mine site served by AEP by the Pevler substation can be extended to provide service to the three boreholes necessary to provide adequate power to the mine. By comparison, it is undisputed that Big Sandy's existing distribution system is inadequate to serve the Matrix mine. In fact, Big Sandy would have to construct a tap onto AEP's 69 kV line to obtain sufficient power to serve the mine. This tap would be built by EKP, and then a new line 1.6 miles long would have to be constructed to the mouth of the Matrix mine. Additional lines would then need to be run from the new substation in order for Big Sandy to provide service to the three boreholes on the Czar mining site.

With respect to cost, should the Commission authorize service by AEP through the existing Pevler substation, the cost to upgrade the existing tap onto AEP's 69 kV line to serve the mine is \$154,000, and Matrix will not incur the cost of building a substation, which would include grading expenses, the cost of fencing, and the cost of building an access road. In fact, Matrix will not be required to pay the \$154,000 upgrade cost since its annual power charges will exceed this amount. Therefore, the cost to Matrix of service through the Pevler substation will be minimal. Should the Commission authorize service by AEP through a new tap onto AEP's 69 kV line, the cost of the tap is \$332,000 and Matrix will incur the cost of the construction of a new substation, including grading, fencing, and an access road. Again, Matrix will not be required to pay the \$332,000 cost of the tap because its annual power charge will exceed this amount.

Service of the Matrix mine through Big Sandy would require the new tap onto AEP's 69 kV line, which will cost \$332,000. Matrix would also incur the cost of the construction of a new

substation, including grading, fencing, and an access road, as well as the cost of building the new 1.6 mile line to the mine portal and the new lines to the boreholes. Contrary to the situation with AEP, Matrix would be required to pay the \$332,000 cost of the tap because this cost is outside Big Sandy's tariff.

Should AEP provide the electric service to the Matrix mine at 5000 kw, the cost to Matrix will be \$68,258.49 per month. Big Sandy can provide power to the Matrix mine under an industrial rate at 5,000 kw at the cost of \$81,697 per month. If the Matrix mine does not qualify for an industrial rate, Big Sandy can serve the mine at 5,000 kw for \$98,988.71 per month. Therefore, at a minimum, it would cost an extra \$13,438.51 per month for Matrix to obtain power from Big Sandy, even if Big Sandy's industrial rate is applied. Over the projected ten year life of the mine, this would result in an additional power cost to Matrix of \$1,612,621.20.

As stated in *Inter-County RECC v. KU*, PSC Case no. 94-326 (Order of April 2, 1996), "KRS 278.017(3)(c) mandates consideration of a retail electric supplier's ability to provide dependable, high quality retail electric service at reasonable costs." The Commission stated in that case that reasonable costs encompassed both the cost to connect service and the recurring charges for such service. Here, the undisputed evidence is that AEP will not charge Matrix to connect service to the mine, either by upgrading the Pevler substation or by adding another tap to its 69 kV line, while Big Sandy will charge Matrix at least \$332,000.00 to do so. Furthermore, service of the Matrix mine by Big Sandy will cost at a minimum approximately \$13,438.51 more per month than would service by AEP, which would result in an additional cost to Matrix of approximately \$1,612,621.20 over the life of the mine. Therefore, this factor also weighs in favor of AEP providing service to the Matrix mine.

#### **D. THE ELIMINATION AND PREVENTION OF DUPLICATION OF ELECTRIC**

## **LINES AND FACILITIES SUPPLYING SUCH TERRITORY.**

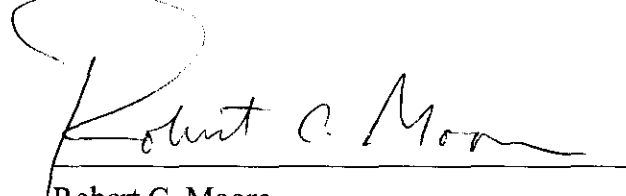
This final statutory factor considers whether awarding service to one utility over another utility will eliminate or prevent duplication of electric lines and facilities. It is clear that service to the Matrix mine through the Pevler substation would prevent the unnecessary duplication of electric lines and facilities supplying the mine. There would be absolutely no need to add a new tap to AEP's 69 kV line and there would be no need to build a new substation. Additionally, the existing lines and infrastructure on the Czar mining site from the Pevler substation could be used to provide the power to the mine and to the three boreholes located on the Czar mining site. The Commission stated in *Kenergy Corporation v. Kentucky Utilities Company*, PSC Case No. 2002-00008 (Order of October 18, 2002) that duplication of facilities is not favored by law because it results in excessive investment in relation to efficiency. (Citing *Kentucky Utilities Co. v. Public Service Commission*, KY., 252 S.W. 2d 885, 891 (1952)). The use of the Pevler substation would avoid the need to add a new tap to AEP's 69 kV line, the need to construct a new substation, the need to build 1.6 miles of new line to the mine and the need to construct new lines to the boreholes. These facts show that this factor weighs in favor of the service of the Matrix mine by AEP through the Pevler substation, as the service by AEP will avoid the unnecessary duplication of already existing facilities.

Similarly, while less effective than service through the Pevler substation, service by AEP through a new tap onto its 69 kV line would also avoid duplication of facilities. The 1.6 mile line to the mine portal would still need to be built, however, the three boreholes on the Czar site could be served from the Pevler substation. Therefore, this factor also weighs in favor of service of the Matrix mine by AEP.

## **CONCLUSION**

Based on the above facts, it is clear that each of the statutory factors contained in KRS 278.017 weigh in favor of granting AEP authorization to serve the Matrix mine through the Pevler substation, as 1) AEP's 69 kV line is actually on the Czar mine site and the line from the Pevler substation is 0.8 miles from the Matrix mine portal, 2) AEP has provided retail electric service to the Czar mine site containing the Alma coal reserves while Big Sandy has not, 3) AEP's costs to provide service to the Matrix mine are substantially less than the costs to be charged by Big Sandy, and 4) Service by AEP will avoid the unnecessary duplication of existing facilities.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert C. Moore", is written over a horizontal line.

Robert C. Moore

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CERTIFICATE OF SERVICE

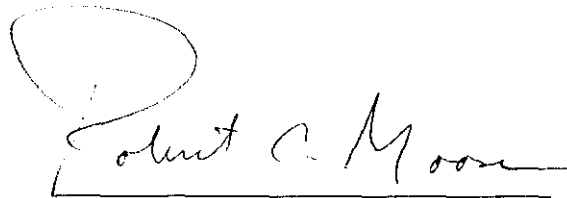
I hereby certify that a copy of the foregoing Answer was served by United States First Class Mail, postage prepaid, on this 23<sup>rd</sup> day of December, 2003 upon:

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A handwritten signature in cursive script, reading "Robert C. Moore". The signature is written in dark ink and is positioned above a horizontal line.